

## CLAIMS

I claim:

1. An imaging system to reposition an image capture device in a position relative to a subject of interest as that of a reference image of the subject of interest, comprising:
  - an image capture device;
  - a position apparatus on which the image capture device is mounted, operable to orient the image capture device relative to a subject of interest;
  - a reference image of the subject of interest;
  - a computational device coupled to the position apparatus, such computational device capable of receiving images from the image capture device and of receiving the reference image, performing a comparison, and communicating position adjustments to reposition the image capture device.
2. An imaging system as in claim 1 wherein the communication of position adjustments is via signals to the positional apparatus from the computational device.
3. An imaging system as in claim 1 wherein the communication of position adjustments is by means of positional adjustment data conveyed by means of a user interface.
4. A method for repositioning an image capture device relative to a subject of interest comprising the steps of:
  - a) initializing an imaging system, wherein initializing includes the steps of
    - a.1) obtaining a reference image of the subject of interest;
    - a.2) repositioning an image capture device relative to the subject of interest;

1                   b) imaging the subject of interest;  
2                   c) computing the difference between the reference image of the subject of interest and  
3 the image capture device image;  
4                   d) refining the position of the image capture device so that the image capture device  
5 is in the same position relative to the subject of interest as that position from which the  
6 reference image was obtained.

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8           5. A method as in claim 4 in which the step of initializing further includes the step of  
9           generating a three dimensional model of the subject of interest through selection of  
10           reference points in the subject of interest.

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12           6. A method as in claim 4 where the reference image is obtained after fixed reference  
13           points have been selected in the subject of interest.

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15           7. A method as in claim 4 where the step of initializing includes extracting reference  
16           points from more than one image of the subject of interest representing more than one  
17           camera center.

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19           8. A method as in claim 4 where time has elapsed between the initialization process and  
20           the repositioning of the image capture device.

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22           9. A method as in claim 4 where the computation of position is communicated to an  
23           automatic position correction apparatus.

1        10. A method as in claim 4 where the computation of position is communicated to the  
2        user through an interface.

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4        11. An apparatus for positioning an imaging device and adapted for operably coupling to  
5        an image capture device and where such apparatus is capable of positioning said image  
6        capture device, such that the positioning of the image capture device is controllable and  
7        said apparatus is operable to orient the image capture device relative to a subject of  
8        interest.

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10       12. An apparatus as in claim 11 where the positioning of the image capture device is  
11       automated.